

APPENDIX C. AGENCY LETTERS



United States Department of the Interior Fish and Wildlife Service



Bloomington Field Office (ES)
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Phone: (812) 334-4261 Fax: (812) 334-4273

January 18, 2008

Mr. Philip Marshall
Indiana DNR, Division of Entomology and Plant Pathology
402 West Washington Street, Room 290
Indianapolis, Indiana 46204

Dear Mr. Marshall:

The U.S. Fish and Wildlife Service (FWS) has reviewed your letter of December 19, 2007 regarding the 2008 gypsy moth treatment program for 17 sites in 7 Indiana counties (Allen, Delaware, Elkhart, Lake, LaPorte, Scott, St. Joseph). We are submitting the following comments on the 2008 program.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The plan submitted in your letter includes aerial spraying of mating disruption pheromone flakes (Disrupt II) at 2 sites (8795 acres total) and aerial spraying of *Bacillus thuringiensis* biological control (Btk) at 15 sites (8617 acres), all with federal funding assistance.

Endangered butterflies

One of the proposed treatment methods, spraying with *Bacillus thuringiensis* (Bt), is of concern for 2 federally endangered species of Lepidoptera in Indiana, the Karner blue butterfly (*Lycaeides melissa samueulis*) and Mitchell's satyr butterfly (*Neonympha mitchelii*). The known occurrences of these 2 endangered species are in the northern portions of Lake and Porter Counties (Karner blue butterfly), and isolated locations in LaPorte and LaGrange Counties (Mitchell's satyr). The range of these species has not changed since our review of the 2007 gypsy moth program. Neither species is known to occur near any of the Btk sites identified in your letter. Treatment with Disrupt II pheromone flakes, which is considered to be highly specific for gypsy moths, will have no adverse impacts on the federally listed butterflies.

Other Endangered Species

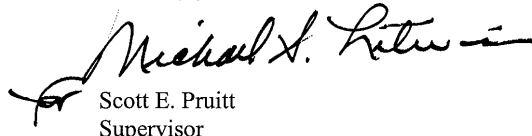
The proposed treatment sites are within the range of the federally endangered Indiana bat (*Myotis sodalis*). Indiana bats hibernate in caves, then disperse to reproduce and forage in relatively undisturbed forested areas associated with water resources during spring and summer. Young are raised in nursery colony roosts in trees, typically near drainageways in undeveloped areas. Prior to hibernation, Indiana bats feed intensively in forested areas near hibernacula in order to build up adequate fat reserves to survive hibernation.

The diet of Indiana bats consists entirely of insects. Based on previous studies they appear to be somewhat opportunistic feeders. Some studies have found lepidopterans as a major dietary component, while others found a diet dominated by terrestrial Coleopterans or aquatic insects. Most of these studies were essentially "snapshots" and there is a lack of comprehensive, long-term research. It is possible that under some circumstances extensive elimination of a broad range of lepidopteran species over a large habitat area has the potential to adversely affect the food base of an Indiana bat nursery colony. This concern increases greatly with the use of Dimilin because it kills a much broader range of insects. None of the proposed treatment areas are near Indiana bat hibernacula. All of the 2008 Btk aerial treatment sites are limited to relatively small areas of Indiana bat summer habitat. Therefore the FWS concludes that the federally assisted 2008 gypsy moth program is not likely to adversely affect any of these federally listed species

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. If, however, new information on endangered species at the site becomes available or if project plans are changed significantly, please contact our office for further consultation.

For further discussion, please contact Mike Litwin at (812) 334-4261 ext. 205.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Michael S. Pruitt", with a stylized flourish at the end.

Scott E. Pruitt
Supervisor

cc: Christie Keifer, Indiana Division of Fish and Wildlife, Indianapolis, IN
USFWS, Chesterton, IN



Indiana Department of Natural Resources

Division of Historic Preservation & Archaeology • 402 W. Washington Street, W274 • Indianapolis, IN 46204-2739
Phone 317-232-1646 • Fax 317-232-0693 • dhpa@dnr.IN.gov

Mitchell E. Daniels, Jr., Governor
Robert E. Carter, Jr., Director



January 9, 2008

Philip T. Marshall
Managing State Entomologist and Forest Health Specialist
Indiana Department of Natural Resources, Division of Entomology and Plant Pathology
402 West Washington Street, Room W290
Indianapolis, Indiana 46204

State Agency: Indiana Department of Natural Resources, Division of Entomology and Plant Pathology

Re: Project information concerning the gypsy moth treatment sites for 2008 (DHPA #3439)

Dear Mr. Marshall:

Pursuant to Indiana Code 14-21-1-18 the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology ("DHPA") has conducted a review of the materials dated and received by the DHPA on December 19, 2007, for the above indicated project in Allen, Delaware, Elkhart, Lake, LaPorte, Scott, and St. Joseph Counties, Indiana.

Based on our analysis, we do not believe that any historic properties will be altered, demolished, or removed by the proposed project.

If you have any further questions regarding this determination, please contact the DHPA. Questions pertaining to this project should be directed to Holly Tate at (317) 234-3919 or htate@dnr.IN.gov. Additionally, in all future correspondence regarding the above indicated project, please refer to DHPA #3439.

Very truly yours,

James A. Glass, PhD
Director, Division of Historic Preservation & Archaeology

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**State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Water**

Early Coordination/Environmental Assessment

DNR #:	ER-13067-1	Request Received: December 19, 2007
Requestor:	Indiana Department of Natural Resources Philip T. Marshall Division of Entomology & Plant Pathology 402 W. Washington Street Rm W290 Indianapolis, IN 46204	
Project:	2008 Proposed Gypsy Moth Treatment Sites (additional sites)	
County/Site info:	Allen - Delaware - Elkhart - Lake - LaPorte - Scott - St. Joseph Counties The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.	
Regulatory Assessment:	Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.	
Natural Heritage Database:	The Natural Heritage Program's data have been checked. The following comments are separated by treatment block (County): Allen - Arlington Park: Mengerson Nature Preserve (NP) is located ¼ mile west of the block. The Division of Nature Preserves (DNP) recommends application with a southwest wind. - St. Joe 08: Mengerson NP is located south of block. DNP recommends application with southwest wind. Lake - Oak Ridge: Oak Ridge Prairie County Park is located within the treatment block, and Hoosier Prairie NP is located just west of the block. Given the importance of both of these natural areas, which contain multiple rare insects, we support the use of pheromone flakes. LaPorte - Beatty Corner: Little Calumet Headwaters NP is located approximately 1 mile southeast of the treatment block, but we do not anticipate any impacts from the treatment. - Springfield 08: Springfield Fen NP, which contains rare insects, is located approximately 1/2 mile east of the Btk treatment area. DNP recommends an application with an east or south wind. Otherwise, the Division supports the use of pheromone flakes in the vicinity of this important natural area. St. Joseph - Quince Rd: There is a wet prairie natural area located east and across the lake from the treatment block. DNP recommends an application with an east or south wind.	

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**State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Water**

Early Coordination/Environmental Assessment

Fish & Wildlife Comments: The impacts of this gypsy moth control effort are impossible to predict. However, the devastating effects of uncontrolled gypsy moth infestations are well documented. Effects on non-target species are possible and care should be taken near areas that could possibly possess endangered or threatened species, or species of concern. The effects on target species will depend on a variety of factors and are impossible to predict with certainty. However, controlling the spread of this species is important to reduce the negative effects the caterpillars have on trees, particularly oaks. At this time, no harm to state or federal listed species resulting from the proposed control measures is known or anticipated. The potential harm from the project is less than the potential harm to these same species from an uncontrolled gypsy moth infestation.

The US Fish and Wildlife Service will provide their own comments regarding the impacts to federally listed species, especially the Karner Blue (*Lycaeides melissa samuelis*) and Mitchell's Satyr (*Neonympha mitchellii mitchellii*) butterflies that occur within counties to receive treatment.

Contact Staff:

Christie L. Stanifer, Environ. Coordinator, Environmental Unit
Our agency appreciates this opportunity to be of service. Please do not hesitate to contact the above staff member at (317) 232-4160 or 1-877-928-3755 (toll free) if we can be of further assistance.



J. Matthew Buffington
Environmental Supervisor
Division of Fish and Wildlife

Date: January 22, 2008